

When What You See Is What You Get: The Consequences of the Objectifying Gaze for Women and Men

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Best Paper



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Abstract

This research examined the effects of the objectifying gaze on math performance, interaction motivation, body surveillance, body shame, and body dissatisfaction. In an experiment, undergraduate participants (67 women and 83 men) received an objectifying gaze during an interaction with a trained confederate of the other sex. As hypothesized, the objectifying gaze caused decrements in women's math performance but not men's. Interestingly, the objectifying gaze also increased women's, but not men's, motivation to engage in subsequent interactions with their partner. Finally, the objectifying gaze did not influence body surveillance, body shame, or body dissatisfaction for women or men. One explanation for the math performance and interaction motivation findings is stereotype threat. To the degree that the objectifying gaze arouses stereotype threat, math performance may decrease because it conveys that women's looks are valued over their other qualities. Furthermore, interaction motivation may increase because stereotype threat arouses belonging uncertainty or concerns about social connections. As a result, the objectifying gaze may trigger a vicious cycle in which women underperform but continue to interact with the people who led them to underperform in the first place. Implications for long-term consequences of the objectifying gaze and directions for future research are discussed.

Keywords

body image, stereotype threat, mathematics anxiety, interpersonal interaction, human sex differences, sexism, motivation, objectification

Pretty woman, walking down the street. Pretty woman, the kind I like to meet. Pretty woman, I don't believe you, you're not the truth. No one could look as good as you. Mercy. (Orbison, 1964).

Imagine that you are this woman hearing these remarks about your appearance. Would Orbison's words distract you? Would you feel good about your body? Would you, as the woman in the song does, further interact with him? Although hardly the most sexualizing or provocative words on the radio, these lyrics convey to women that their looks are very important, if not, their most important feature. These words represent sexual objectification that "occurs when a woman's sexual parts or functions are separated out from her person, reduced to the status of mere instruments, or else regarded as if they were capable of representing her" (Bartky, 1990, p. 35; Fredrickson & Roberts, 1997; MacKinnon, 1987; McKinley & Hyde, 1996). The goal of our study is to examine the effect of the objectifying gaze on undergraduate women's and men's math performance, interaction motivation (i.e., motivation to interact with the person in the future), and body image outcomes, including body surveillance, body shame, and body dissatisfaction. Toward that end, we review theory and research on objectification (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996) and stereotype threat (Steele & Aronson, 1995).

According to scholars, sexual objectification represents an important problem in women's lives (Bartky, 1990; MacKinnon, 1987). Objectification experiences may range on a continuum with more violent and blatant behaviors, like assault and harassment, on one end and less violent and subtle behaviors, like the objectifying gaze and appearance remarks, on the other end. Daily diary data with U.S. college students suggest that women experience subtle forms of sexual objectification 1–2 times per week on average (Swim, Hyers, Cohen, & Ferguson, 2001) and that even subtle forms of objectification adversely affect women (Tiggemann & Boundy, 2008).

Our study extends and elaborates previous theory and research in three ways. First, in actual interactions, we experimentally examined the effects of objectification experiences.

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Whereas women are frequently sexually objectified in interpersonal interactions (Fredrickson & Roberts, 1997), most researchers have focused on situations where women are exposed to either sexually objectifying media (Archer, Iritani, Kimes, & Barrios, 1983; Goffman, 1979; Kilbourne & Pipher, 1999; Mulvey, 1975) or heightened appearance pressures (e.g., wearing a swimsuit; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Hebl, King, & Lin, 2004; Quinn, Kallen, Twenge, & Fredrickson, 2006). Of the studies that have examined sexual objectification in social interactions, most have been correlational (Calogero, Herbozo, & Thompson, 2009; Fairchild & Rudman, 2008; Huebner & Fredrickson, 1999; Kozee, Tylka, Augustus-Horvath, & Denchik, 2007; Moradi, Dirks, & Matteson, 2005; cf. Tiggemann & Boundy, 2008). Moradi et al. (2005), for example, examined whether reported frequency of sexual objectification experiences (e.g., sexist comments about body parts) predicted eating-disorder variables. As a result, the causal links between interpersonal sexual objectification and its consequences are not well understood.

Second, we examined the consequences of a specific form of interpersonal sexual objectification, the objectifying gaze. The objectifying gaze, the visual inspection of the body by another person, is theorized as one of the main manifestations of sexual objectification (Fredrickson & Roberts, 1997) and its theorized consequences include interrupted flow experiences and body image problems. Three sets of findings support this notion. First, women's reported experiences with the objectifying gaze are associated positively with body surveillance and the internalization of thin ideals (Kozee et al., 2007). Second, women's anticipation of the objectifying gaze from men causes increased body shame and social physique anxiety (Calogero, 2004). Third, women talk less when a camera lens focuses on their bodies (vs. faces or voices; see Saguy, Quinn, Dovidio, & Pratto, 2010). To our knowledge, however, the actual objectifying gaze from another person (vs. retroactive reports or anticipated) has not been directly manipulated in prior research, so the immediate effects of the objectifying gaze are unclear.

In our study, we manipulated the objectifying gaze by having a confederate of the other sex "check out" and make an appearance-related compliment toward women and men during an interview. The latter part of the objectifying gaze manipulation is consistent with recent considerations of "complimentary" sexual objectification. Although most previous research has focused on critical forms of objectification (e.g., rude body-related comments; Gapinski, Brownell, & LaFrance, 2003; Kozee et al., 2007), Calogero et al. (2009) found that weight-related compliments were associated with positive moods but also with body surveillance and body dissatisfaction. Tiggemann and Boundy (2008) also found that clothing-related compliments caused more body shame. Given that these forms of objectification may or may not be perceived as complimentary by recipients and we did not measure subjective experiences of the gaze, in the present work we simply refer to our manipulation as the objectifying gaze.

Finally, we examined whether the objectifying gaze exerted a stronger influence on women than men. Although most researchers have focused on women's sexual objectification experiences, men are increasingly sexually objectified in the media (Bordo, 1999; Kilbourne & Pipher, 1999; Rohlinger, 2002) and by other people (Strelan & Hargreaves, 2005). Rohlinger (2002), for example, found that 36.9% of ads presented men's bodies in sexually objectifying ways (e.g., focused on their body parts to display products). Sexual objectification of men in the media has also been associated positively with body dissatisfaction, disordered eating, depression, steroid use, and excessive exercise for men (Aubrey, 2006; Baird & Grieve, 2006; Hallsworth, Wade, & Tiggemann, 2005; Harrison & Cantor, 1997; Harvey & Robinson, 2003; Martins, Tiggemann, & Churhett, 2008; Morry & Staska, 2001; Wiseman & Moradi, 2010). Still, research shows that sexual objectification experiences affect women, gay men, men from racial minorities, and body builders more than White, heterosexual average-build men (e.g., Hallsworth et al., 2005; Hebl et al., 2004; Martins, Tiggemann, & Kirkbride, 2007). Thus, the objectifying gaze may have varied effects on different groups of men, but the objectifying gaze is expected to have adverse effects on all groups of women.

Math Performance

Turning to the consequences of the objectifying gaze, our first prediction is that the objectifying gaze will cause reduced math performance. Multiple theories and studies are consistent with this notion. Objectification theory suggests that sexual objectification experiences may reduce peak motivation or flow states, which are "rare moments during which we are truly living, uncontrolled by others, creative and joyful" (Fredrickson & Roberts, 1997, p. 183). Sexual objectification experiences may directly, or indirectly through self-objectification, cause women to experience reduced concentration and fewer peak experiences (Fredrickson & Roberts, 1997). Disrupted performance on math and other cognitive tests is assumed to represent disrupted cognition or reduced flow (Fredrickson et al., 1998). Consistently, women who were encouraged to self-objectify by sporting a swimsuit (vs. sweater) in front of a mirror performed worse on a math (Fredrickson et al., 1998) and a color-naming Stroop test (Quinn et al., 2006), suggesting that women's attention was divided between monitoring one's appearance and completing the task.

Additionally, the objectifying gaze may cause reduced math performance because women experience stereotype threat, which occurs when negatively stereotyped people worry that they will confirm stereotypes through their performance (Steele & Aronson, 1995). In math, women worry about confirming negative domain-specific gender stereotypes (e.g., women are inferior to men at math), resulting in decreased performance on math tests (Spencer,

Steele, & Quinn, 1999; see Campbell & Collaer, 2009 for similar findings on visuospatial tests). Similar to objectification theory, a considerable body of research suggests that stereotype threat and its consequences follow from disrupted cognition (e.g., decrements in working memory; Schmader, Johns, & Forbes, 2008), but fewer studies have examined the cues in the social environment that arouse threat in the first place (cf. Inzlicht & Ben-Zeev, 2000; Logel et al., 2009). Sexual objectification cues in interactions, like the objectifying gaze, may be another important cause of stereotype threat because they convey that women's looks are valued over their other qualities.

Interaction Motivation

Our second prediction is that the objectifying gaze will affect interaction motivation. Objectification theory was originally developed to describe mental health consequences of sexual objectification experiences (Fredrickson & Roberts, 1997). However, experiencing interpersonal sexual objectification may have not only mental health but also interpersonal outcomes. Specifically, we suggest that the objectifying gaze may affect women's motivation for future interactions with the objectifier or interaction motivation (similar to future task motivation; Smith, Sansone, & White, 2007). Because previous theory and research have not considered the interpersonal consequences of the objectifying gaze, we examined two competing hypotheses. On one hand, the objectifying gaze may be linked to avoidance motivation like other forms of staring (Ellsworth, Carlsmith, & Henson, 1972; Jones & Cooper, 1971; Kleck & Nuessle, 1968). As an example, women showed more avoidance by talking less when a camera was focused on their bodies (vs. their faces or voices; Saguy et al., 2010). If the objectifying gaze also causes avoidance, then we would expect decreased interaction motivation.

On the other hand, however, to the degree that the objectifying gaze is experienced more positively than staring (Calogero et al., 2009), then approach motivation may be aroused. Unlike most instances of staring, the objectifying gaze may convey a seemingly positive evaluation of another person—an approving look or compliment about one's appearance. Moreover, to the degree that stereotype threat is aroused among recipients of the objectifying gaze, then an increased desire to interact with the objectifier might be particularly strong, given that stereotype threat arouses belonging uncertainty or concerns about social connections (Walton & Cohen, 2007). If the objectifying gaze causes approach motivation and belonging uncertainty, then we would expect increased interaction motivation from the gaze. Regardless of interaction motivation, objectification theory suggests that the objectifying gaze should be associated with an array of adverse body image outcomes.

Body Image

Our third prediction is that the objectifying gaze will cause increased body surveillance, body shame, and body dissatisfaction. Sexual objectification experiences can promote self-objectification or the internalization of a third person's perspective of their bodies and women may regard their looks as more important than other aspects of themselves (e.g., their thoughts, feelings, and physical health; Bartky, 1990; Berger, 1972; de Beauvoir, 1952; Fredrickson & Roberts, 1997; McKinley, 1998, 2006; McKinley & Hyde, 1996). Women, for example, rank physical appearance as more important than physical strength to their self-concept to a greater extent than men (Noll & Fredrickson, 1998). Although the suggestion that the objectifying gaze may cause both increased interaction motivation and increased body image problems may seem contradictory, they are consistent with recent studies on complimentary objectification (e.g., Calogero et al., 2009; Tiggeman & Boundy, 2008) and objectification theory's proposition that any sexual objectification experiences reminding women that they are being evaluated and valued based on their appearance may cause body image problems.

Body surveillance. Specifically, the objectifying gaze may cause increased body surveillance, which is the "habitual monitoring of the body's outward appearance" (Fredrickson & Roberts, 1997, p. 180; McKinley & Hyde, 1996). Consistently, studies show that reported sexual objectification experiences are associated positively with body surveillance (Calogero et al., 2009; Hill & Fischer, 2008; Kozee et al., 2007; Moradi et al., 2005; cf. Sinclair, 2006).

Body shame. The objectifying gaze also may cause increased body shame, which is the emotional response that follows from measuring oneself against an internalized or cultural standard and perceiving oneself as failing to meet that standard (Fredrickson & Roberts, 1997). Because the objectifying gaze focuses women's attention on their looks, women may experience a shameful response because their actual bodies fail to meet cultural appearance ideals. As an example, women who were high in trait self-objectification reported higher body shame after receiving an appearance compliment (vs. control women; Tiggemann & Boundy, 2008).

Body dissatisfaction. The objectifying gaze may also cause body dissatisfaction, which consists of awareness of potential discrepancies between women's actual bodies and cultural appearance ideals (Smolak & Levine, 2001; Thompson, 1990). Although moderately correlated with body shame (Knauss, Paxton, & Alsaker, 2008), body dissatisfaction represents an awareness (vs. negative feeling) of actual-ideal body discrepancies. The objectifying gaze may cause increased body dissatisfaction because it makes women aware of potential discrepancies between their actual and ideal bodies. Consistent with this notion, women reported

higher body dissatisfaction when they interpreted weight-related criticisms more negatively or weight-related compliments more positively (Calogero et al., 2009). In fact, women experienced the most body dissatisfaction when they received an appearance compliment (vs. criticism).

Gender Differences

Finally, we examined whether the objectifying gaze exerted a stronger effect on women than men. Because women and men live in a society where the thin ideal is culturally reinforced and appearance is highly valued for women (Rodin, Silberstein, & Striegel-Moore, 1985), the objectifying gaze may indicate to women that other people simultaneously value their appearance and devalue their other attributes. This concern is warranted because a focus on appearance results in lower perceptions of overall competence and work-related competence (e.g., performance evaluations and merit raises) for women, but not men (Heilman & Stopeck, 1985). To the degree that one's appearance is valued above other critical components of one's competence and skills, math performance may suffer, one may become more or less motivated to interact with others, and one may experience body surveillance, body shame, and body dissatisfaction. Because appearance is not pitted against other attributes for men, it is unlikely that men will interpret the objectifying gaze as evidence that their other attributes are devalued.

Integrating these considerations, we hypothesized an Objectifying Gaze Condition \times Participant Gender interaction on math performance, interaction motivation, body surveillance, body shame, and body dissatisfaction. Specifically, we expected that women (vs. men) would show (a) lower math performance; (b) higher or lower interaction motivation; and (c) higher body surveillance, body shame, and body dissatisfaction in the objectifying gaze condition. We also expected that these effects would be more pronounced for women in the objectifying gaze (vs. control) condition.

Method

Participants

One hundred and fifty undergraduates (67 women and 83 men) from a large U.S. Midwestern university participated in the study in return for course credit. Based on a power analysis using a small effect size and an alpha level of .05, a sample of 25 participants per cell was deemed sufficient to detect the predicted effects (Cohen, 1988). Participants ranged in age from 18 to 29 years ($M = 19.16$, $SD = 1.49$). As indicated by self-identification, participants were 89% European American ($n = 134$, 57 women), 2.7% African American ($n = 4$, 4 women), .67% Latino ($n = 1$ man), 3.3% Asian American ($n = 5$, 3 women), 1.3% Multiracial ($n = 2$, 1 woman), and 2.7% ethnicity unspecified ($n = 4$, 2 women). The vast majority of participants (98%) self-identified as

heterosexual ($n = 147$, 65 women), with only 1.3% of participants identifying as bisexual ($n = 2$, 1 woman) and one as lesbian. Finally, 48.7% of participants were single ($n = 73$, 27 women), 18.7% of participants were involved in casual dating relations ($n = 28$, 11 women), and 32.7% of participants were involved in a committed relationship ($n = 49$, 29 women).

Procedure

Participants were brought into the lab individually by experimenters and told that the research was investigating how people work in teams. They also learned that they may be asked to report their feelings about themselves and others and to complete word problems. Experimenters were undergraduate women and men and were 20–22 years old. In accordance with the consent protocol approved by the university's Institutional Review Board, participants learned that the results of the study could be affected if the full purpose was known prior to participation and that a complete explanation would be provided at the end of the study.

After participants provided informed consent, the participant's partner, ostensibly another participant, arrived and was led to a separate room. In actuality, all "partners" were trained confederates and were of the other sex from the participant. Participants were informed that each dyad would complete several math problems and that they would be competing with teams from other sessions for \$25. The participant and confederate were then asked to complete a leadership skills questionnaire to select a leader and a worker. Leaders were responsible for interviewing the worker, selecting math problems, evaluating the answers, and forwarding the final team solution. Workers were responsible for answering the interview questions, completing the problems, and considering feedback from the leader. The scoring of the questionnaire was rigged so that all participants were assigned to the team worker position. After team assignments were given, a getting acquainted interview ensued. Participants were asked to examine sample math problems while their partner presumably considered a list of potential interview questions.

Manipulation of the objectifying gaze. Women and men were randomly assigned with the flip of a coin to either the objectifying gaze (33 women and 46 men) or control condition (34 women and 37 men). The objectifying gaze was then manipulated in a staged interview in which the gaze was exhibited and written objectifying feedback was given by the confederate. There were four confederates (2 women and 2 men) who were 20–22 years old. All of the confederates were trained to enact the objectifying gaze or not during an interview. Each confederate engaged in training sessions that took between 28 and 30 hours with the first author. The training sessions involved instructing the confederates on the timing and location of the gaze, and confederates practiced the gaze on the experimenter, other research assistants, and other undergraduates. For a full description of the training, please contact the

first author. Additionally, after the training sessions, the first author and a trained research assistant regularly viewed the interactions to ensure that the confederates' behavior in each condition was consistent over time. Although it was impossible to have confederates unaware of condition, they were uninformed about the specific hypotheses.

When the participant entered the room, the confederate looked from head to waist and from waist to head in one sweeping motion. The participant then sat in a chair that was situated 2 feet away from the confederate. The confederate said "Ready?" and proceeded to ask five interview questions (e.g., Tell me about a situation in which you succeeded at something that was important to you). After the participant answered each question, the confederate said "Okay" and proceeded to the next question. Before and after asking the first, third, and last question, the confederate briefly gazed at the participant's chest. Although women's chests may be more sexualized for women than men, research reveals that in social interactions, men are increasingly focused on the muscularity of their chests (e.g., Pope, Katz, & Hudson, 1993; Pope, Olivardia, Gruber, & Borowiecki, 1999). To reinforce the manipulation for both women and men, we provided a more general appearance statement described below. After the participant had answered the five questions, the confederate said "That's all I've got" and the experimenter led the participant to another room. The control condition was identical to the objectifying gaze condition except that the confederate made eye contact when the participant first entered the room and before and after asking the first, third, and last questions.

In their seminal work on this issue, Fredrickson and Roberts (1997, p. 175) noted that "Always present in contexts of sexualized gazing is the *potential* for sexual objectification." In other words, the objectifying gaze often indicates that women are being reduced to their sexual body parts or functions, but it is not inevitable. To clearly convey that the objectifying gaze was an indicator of sexual objectification for both women and men, the confederate gave the participant objectifying written feedback 3 minutes after the interview. Specifically, in response to "How did the interview go?" the confederate wrote "[participant's name] was looking good" and in response to "Why did you choose the problems?" the confederate wrote "From the looks of you, I thought you would do these problems best." The feedback was identical in the control condition, except "doing" replaced "looking" and "responses" replaced "looks." The statement was designed to convey that the problems were either being assigned on the basis of the participant's looks (the objectifying gaze) or the participant's responses (control), but to be equally positive.

A separate sample of undergraduate students ($n = 115$) in a classroom setting rated how positive and objectifying the statements were on 7-point Likert-type scales, ranging from 1 (*not at all*) to 7 (*very much*). Although the gender breakdown of the sample was not available, half (56%) of the class

participants were women. Half the students rated the "looks" statement and the other half rated the "responses" statement. The "looks" statement ($M = 4.05$, $SD = 1.33$) was rated as equally positive to the "responses" statement ($M = 3.76$, $SD = 1.54$), $t(113) = 1.085$, $p = .28$, but the "looks" statement was rated as more objectifying ($M = 5.70$, $SD = 1.23$) than the "responses" statement ($M = 3.42$, $SD = 1.63$), $t(113) = 8.39$, $p < .001$, $d = 1.58$. Thus, the written feedback in our manipulation of the objectifying gaze provided the necessary information required to interpret the gaze as objectifying, but similarly positive, to the control condition. Immediately following the written feedback, participants completed the math performance, interaction motivation, body surveillance, body shame, and body dissatisfaction measures.

Manipulation check. At the end of the study, participants were asked to indicate whether their partner engaged in the following nonverbal behaviors on a 7-point Likert-type scale, ranging from 1 (*extremely disagree*) to 7 (*extremely agree*): smiled frequently, leaned forward while we were talking, seemed preoccupied with how I looked rather than what I was saying (modified from the Interpersonal Sexual Objectification Scale, Kozee et al., 2007), made notes of what I was saying, responded supportively to my answers, acted in a professional way, and touched me on the leg or arm. They were also asked to write the gist of the feedback they received from their partner.

Measures

Math performance. Participants were allotted 10 minutes by their partner to complete 12 math problems. These were the same problems used by Vescio, Gervais, Snyder, and Hoover (2005, Study 2, Round 1). As in previous stereotype threat (e.g., Spencer et al., 1999) and objectification (e.g., Fredrickson et al., 1998) research, the problems were adapted from typical quantitative and logic Graduate Record Examination (GRE) problems. Items found on the quantitative GRE assess knowledge of mathematical reasoning and demonstrate predictive validity of success in graduate school (Educational Testing Services, 2010; Kuncel, Hezlett, & Ones, 2001). Although all participants were given the same problems, the problems appeared to be chosen especially for them by their partner (e.g., the problems had different letters and numbers in the upper corner). After 10 minutes passed, the experimenter took the problems to the confederate to ostensibly determine which problems would be forwarded as the final team solution. As in previous research (Vescio et al., 2005), each correctly answered problem was assigned a score of 1. Each unanswered or incorrectly answered problem received a score of 0. A math performance score was calculated from the sum across math problems.

Interaction motivation. Participants were then asked to complete the interaction motivation measure. Specifically,

they were asked to indicate how much they would like to interact with their partner in future situations (“the leader is someone I would like to hang out with;” “I would like to work with the leader in my job”) on 9-point Likert-type scales from 1 (*extremely disagree*) to 9 (*extremely agree*). We created these items from similar measures of task motivation (e.g., “how interested are you in doing another task;” Smith et al., 2007). Instead of focusing on a specific task, however, it focused on a specific person. A mean interaction motivation score was calculated from the 2 items ($r = .78$).

Body surveillance, body shame, and body dissatisfaction. Finally, participants completed the 8-item body surveillance (e.g., “I am more concerned with what my body can do than how it looks”—reverse coded) and the 8-item body shame (e.g., “I would be ashamed for people to know what I really weigh”) subscales of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996). Participants rated the degree to which they agreed with each statement on a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with a not applicable option for items that did not apply. Following McKinley and Hyde’s (1996) instructions, not applicable responses were coded as missing, negatively worded applicable items were reverse coded, and mean body surveillance ($\alpha = .79$) and body shame ($\alpha = .80$) scores were calculated. The OBCS has demonstrated acceptable reliability for both women and men on body surveillance ($\alpha_{\text{women}} = .76$; $\alpha_{\text{men}} = .79$) and body shame ($\alpha_{\text{women}} = .70$; $\alpha_{\text{men}} = .73$, McKinley, 1998; McKinley & Hyde, 1996) as well as convergent validity with body esteem (Moradi & Huang, 2008).

Participants completed the Figure Rating Scale (Stunkard, Sorenson, & Schulsinger, 1983), a long-standing and widely used measure of body dissatisfaction (e.g., Cafri, van den Berg, & Brannick, 2010; Quinlivan & Leary, 2005; Thompson & Altabe, 1991; Tiggemann, Martins, & Kirkbride, 2007). Participants indicated which of nine figures, ranging from extremely thin to extremely overweight, most resembled both their (a) actual and (b) ideal body shape. The degree of discrepancy between an individual’s actual and ideal figures, if any, indicates the degree to which the individual is dissatisfied with her or his body (Smolak & Levine, 2001; Thompson, 1990) and is associated with other measures of body dissatisfaction (e.g., Eating Disorders Inventory—Body Dissatisfaction subscale; Garner, 1991; Thompson & Altabe, 1991). Because we examined the effects of the objectifying gaze in cross-sex interactions, participants were asked to circle their actual figure (“Which drawing looks most like your current figure?”) and different gender ideal figure (“Which figure do you think most people of the opposite gender like or think is attractive?”) using a 9-point scale from 1 (*very skinny figure*) to 9 (*very heavy figure*). Ideal figure scores were subtracted from actual figure scores to create an actual–ideal discrepancy.

Finally, participants then were asked to indicate their gender, racial/ethnic status, age, sexual orientation, and relationship status. Participants were also probed for suspicion and thoroughly debriefed.

Results

Manipulation Check

To examine the manipulation of the objectifying gaze, the partner’s nonverbal behavior ratings were submitted to a Condition (objectifying gaze or control) \times Participant Gender (men or women) between-participants analysis of variance (ANOVA). A significant main effect for condition emerged, $F(1, 149) = 8.46, p < .004, \eta_p^2 = .04$. Participants in the objectifying gaze condition ($M = 3.44, SD = 1.80$) felt that their partner was more preoccupied with the way they looked than participants in the control condition ($M = 2.70, SD = 1.39$). Neither the main effect for gender, $F(1, 149) = 0.05, p = .83$, nor the interaction, $F(1, 149) = 2.14, p = .15$, was significant. To further verify that perceptions of the objectifying gaze were similar for women and men in both conditions, planned contrasts were conducted for women and men within conditions. There were no gender differences in perceptions of the objectifying gaze in the control, $F(1, 149) = 1.36, p = .25$, or objectifying gaze, $F(1, 149) = 0.81, p = .37$, conditions. Additionally, participants in the objectifying gaze (vs. control) condition were significantly more likely to recall that the gist of the feedback was about their looks, $\chi^2(1, n = 150) = 150.00, p < .001$.

Although the confederate’s behavior was regularly observed by the first author and a trained research assistant, we also submitted the other impressions of the confederate’s nonverbal behavior to a Condition (objectifying gaze or control) \times Participant Gender (men or women) between-participants ANOVA to be certain that other nonverbal behaviors (e.g., smiling) did not vary as a function of gender or condition. No significant effects (main effects or interactions) emerged from these analyses, indicating that the only behavior that varied across condition or gender was condition-appropriate perceptions of the objectifying gaze. Finally, including the individual confederates as a variable in the tests of our hypotheses did not moderate or change the pattern of results.

Hypothesis Testing

Math performance. Math scores were submitted to a Condition (objectifying gaze or control) \times Participant Gender (men or women) between-participants ANOVA. A significant main effect of participant gender, $F(1, 149) = 13.75, p < .001, \eta_p^2 = .09$, revealed that women ($M = 5.44, SD = 1.85$) performed worse than men ($M = 6.53, SD = 1.76$). The effect of condition was not significant, $F(1, 149) = 1.97, p = .16$. Consistent with hypotheses, however, the effect of participant gender was qualified by a Condition \times Participant

Table 1. Means and Standard Deviations as a Function of Condition and Participant Gender

Dependent Measure	Condition	Women M (SD)	Men M (SD)
Math Performance	Objectifying Gaze	4.88 ^a (1.69)	6.61 ^c (1.65)
	Control	6.00 ^b (1.86)	6.43 ^{bc} (1.89)
Interaction Motivation	Objectifying Gaze	5.97 ^a (1.37)	5.40 ^{ac} (1.75)
	Control	4.94 ^b (1.84)	5.64 ^{bc} (1.57)
Body Surveillance	Objectifying Gaze	4.57 ^a (0.81)	4.00 ^b (0.78)
	Control	4.84 ^a (0.96)	3.91 ^b (0.74)
Body Shame	Objectifying Gaze	3.31 ^a (1.19)	2.49 ^b (0.70)
	Control	3.32 ^a (1.23)	2.67 ^b (0.80)
Body Dissatisfaction	Objectifying Gaze	0.75 ^a (1.22)	-0.21 ^b (1.31)
	Control	0.85 ^a (0.92)	0.24 ^b (1.25)

Note. Means not sharing a superscript across a row and down a column within each measure differ at $p < .05$.

Gender interaction, $F(1, 149) = 4.95, p < .028, \eta_p^2 = .03$. The significant interaction was further explored by means of planned contrasts using a Bonferroni correction, revealing that women in the objectifying gaze condition performed significantly worse than women in the control condition, $F(1, 149) = 6.72, p < .011, \eta_p^2 = .04$. By contrast, men in the objectifying gaze condition performed similarly to men in the control condition, $F(1, 149) = 0.20, p = .65$ (see Table 1). We also examined whether women's and men's performance differed within condition. In the objectifying gaze condition, women performed significantly worse than men, $F(1, 149) = 18.35, p < .001, \eta_p^2 = .11$, whereas in the control condition women performed similarly to men, $F(1, 149) = 1.06, p = .31$.

Interaction motivation. Interaction motivation scores were submitted to a Condition (objectifying gaze or control) \times Participant Gender (men or women) between-participants ANOVA. There was neither a significant main effect of condition, $F(1, 149) = 1.46, p = .23$, nor participant gender, $F(1, 149) = 0.06, p = .81$. Importantly, the hypothesized Condition \times Participant Gender interaction was significant, $F(1, 149) = 5.50, p = .020, \eta_p^2 = .04$. As shown in Table 1, women in the objectifying gaze condition were more interested in spending time with their partner than women in the control condition, $F(1, 149) = 6.51, p = .012, \eta_p^2 = .04$, whereas the interaction motivation of men did not vary by condition, $F(1, 149) = 0.46, p = .50$. There were not, however, significant gender differences in the objectifying gaze condition, $F(1, 149) = 2.27, p = .13$, or the control condition, $F(1, 149) = 3.26, p = .07$.

Body surveillance, body shame, and body dissatisfaction. As noted above, we measured three body image variables: body

surveillance, body shame, and body dissatisfaction. Not surprisingly, these three variables were intercorrelated (see Table 2). Therefore, we submitted the three measures to a Condition (objectifying gaze or control) \times Participant Gender (men or women) between-participants multivariate analysis of variance (MANOVA). There was a significant main effect for participant gender, $F(3, 146) = 11.99, p < .001$; Wilks's $\Lambda = .74, \eta_p^2 = .10$, but not for condition, $F(3, 146) = 0.54, p = .71$, or the interaction, $F(3, 146) = 1.20, p = .31$. Importantly, the main effect of gender was significant for each of the three measures. Women ($M = 4.71, SD = .90$) reported more body surveillance than men ($M = 3.96, SD = .76$), $F(1, 149) = 30.75, p < .001, \eta_p^2 = .17$. Women ($M = 3.32, SD = 1.20$) felt more body shame than men ($M = 2.57, SD = .75$), $F(1, 149) = 19.94, p < .001, \eta_p^2 = .13$. Women ($M = 0.92, SD = 0.85$) also experienced more body dissatisfaction than men ($M = 0.06, SD = 1.16$), $F(1, 149) = 16.02, p < .001, \eta_p^2 = .10$.

Most studies using the Figure Rating Scale, our measure of body dissatisfaction, report discrepancy scores that are created by subtracting the ideal rating from the actual rating with higher numbers indicating higher body dissatisfaction. Difference scores, however, suffer from many methodological and statistical problems, including reduced reliability and increased measurement error (Edwards, 2002). As a result, some scholars have suggested assessing body dissatisfaction using alternative statistical procedures (Cafri et al., 2010). To address this issue, we created a multivariate model in which both outcomes (the actual and ideal score) were included and the difference was specified as a predictor in the model. This strategy allowed us to control for the effect of the predictors on the absolute level of one of the outcomes while estimating its effect on the difference. Consistent with the analyses reported from the difference scores, there was an interaction between participant gender and difference score, $F(1, 148) = 17.04, p < .001, \eta_p^2 = .10$, revealing that women's actual figures were significantly heavier than women's ideal figures, $t(148) = 5.47, p < .001, d = .90$, whereas men's actual figures and men's ideal figures $t(148) = .09, p = .93$, did not differ significantly. Additionally, men's ideal figures were significantly heavier than women's ideal figures, $t(148) = -9.46, p < .001, d = -1.55$, and women's actual figures were heavier than men's actual figures, $t(148) = -1.96, p = .052, d = .32$, although this effect was marginal.

Discussion

The purpose of our study was to examine the effect of the objectifying gaze on women's and men's math performance, interaction motivation, body surveillance, body shame, and body dissatisfaction. We found small but reliable effects of gender and the objectifying gaze on math performance and interaction motivation. The main effect of gender indicated that, overall, women performed worse than men on the math

Table 2. Descriptive Statistics and Intercorrelations for Measures as a Function of Participant Gender ($N = 150$)

	<i>M (SD)</i>	1	2	3	4	5
1. Interaction motivation	5.50 (1.67)		-.189	-.253*	-.123	-.079
2. Math performance	6.04 (1.87)	-.025		.185	.042	.077
3. Body Surveillance	4.29 (0.90)	-.201	.049		.180	.140
4. Body Shame	2.90 (1.04)	.101	-.231	.385**		.012
5. Body Dissatisfaction	0.40 (1.18)	-.196	.014	.399**	.432***	

Note. Correlations for men are reported above the diagonal; for women, below the diagonal. Means and standard deviations are collapsed across gender in the table but are reported separately in the text.

* $p < .05$. ** $p < .01$. *** $p < .001$.

test. However, this effect was qualified by the interaction, showing that there was only a significant gender difference in math performance in the objectifying gaze condition. Moreover, women in the objectifying gaze condition performed worse than women in the control condition, whereas men performed similarly in both conditions. Interestingly, women reported *more* interaction motivation in the objectifying gaze condition than in the control condition, suggesting that the objectifying gaze motivates women to engage in more interaction with their objectifying partner. Men reported similar interaction motivation in both conditions. Finally, replicating previous research, women reported more body surveillance, body shame, and body dissatisfaction than men, but this difference did not vary by condition, which was inconsistent with our hypotheses.

Although we approach the null effects on the body image outcomes with caution, one explanation is that women already experience body image problems as a result of living in a society pervaded by objectification and one additional objectifying experience has little-to-no effect on body image. This explanation is consistent with the notion of “normative discontent” (Rodin et al., 1985), which suggests that body dissatisfaction among women is the rule, rather than the exception. It is also possible that the objectifying gaze does not affect immediate body image outcomes.

Implications

It is important to note that the effect sizes in our study were small, indicating that the objectifying gaze accounted for some (but not the majority) of the variance in math performance and interaction motivation in the current setting. However, a small statistical effect should not be confused with a meaningless effect in the real world. Participants in our study experienced a single instance of the objectifying gaze. Because one experience of the objectifying gaze caused decreased math performance and increased interaction motivation, these effects may accumulate over time, given that women report frequent sexual objectification experiences (Swim et al., 2001).

Furthermore, our findings suggest that self-objectification, manifested through body surveillance, may not always explain the relationship between sexual objectification experiences and peak motivational states. Fredrickson and Roberts (1997) suggested that sexual objectification interrupts peak states *directly* by distracting women or *indirectly* through self-objectification. Our data are more consistent with the former explanation; although the objectifying gaze caused decreased math performance, it did not cause increased body surveillance. Furthermore, the correlations between math performance and body surveillance were not significant, even when women and men were considered separately (Table 2).

Future research should further integrate other mechanisms that may explain the relationship between the objectifying gaze and adverse psychological outcomes. One such mechanism is stereotype threat (Steele & Aronson, 1995). Recent research indicates that interacting with sexist men triggers stereotype threat for women. When men behaved in sexually interested and dominant ways, for example, women experienced stereotype threat (Logel et al., 2009). Whereas many previous considerations of stereotype threat have focused on contexts that are devoid of social interactions, we suggest that interacting with objectifying men may trigger stereotype threat, which may threaten women beyond the threat aroused by math itself.

Additionally, previous work has suggested that the perceived valence of the event may moderate the effect of the objectifying gaze (Calogero et al., 2009; Wiseman & Moradi, 2010). It is possible that the attention women receive as a result of the objectifying gaze may be affirming to varying degrees. Women with more positive subjective experiences of the objectifying gaze may be especially susceptible to the negative consequences of the gaze because it serves as a reminder that they are being valued on the basis of their appearance (Calogero et al., 2009). Thus, future work should measure the perceived valence of the objectifying gaze. Future research should also examine which situations or individual differences (e.g., endorsing feminist beliefs; Myers & Crowther, 2007) elicit coping to reduce the negative effects of objectification.

We tested competing hypotheses regarding interaction motivation, and it appears women wanted more interaction with their objectifying partner. Why might this be? First, it is possible that women sometimes desire the objectifying gaze. Because women chronically experience body image problems, the objectifying gaze may provide women with an opportunity to feel attractive and have their appearance validated (Breines, Crocker, & Garcia, 2008). Importantly, this desire may be evident only for some women and only for some types of objectification. For example, it is unlikely that women with low appearance-contingent self-worth desire sexual objectification and that any women desire critical forms of sexual objectification (cf. Joiner, 1999).

Second, women may have perceived the objectifying gaze as an indicator that their partner was attracted to them and responded reciprocally (Berscheid & Walster, 1978) by reporting more interaction motivation. Given that relationships are an important component of women's identities, women may have internalized the culturally defined need to be relationship-oriented (Eagly & Wood, 1991; Gabriel & Gardner, 1999). This may be particularly likely for women with high relationship-contingent self-worth (Sanchez & Kwang, 2007). However, this explanation does not account for the difference between women in the objectifying gaze and control conditions. It appears that the objectifying gaze has an effect above and beyond gender-congruent behaviors.

Third, the objectifying gaze may simultaneously convey to women that their appearance is valued while their other qualities are devalued, which may cause stereotype threat. Stereotype threat prompts belonging uncertainty (Walton & Cohen, 2007), so women may report more interaction motivation to reduce belonging uncertainty. Finally, women may report more interaction motivation because they want to show their partner that they are not simply a sex object. Research suggests that women may develop coping mechanisms to combat the adverse effects of sexual objectification (Fairchild & Rudman, 2008).

The findings in the current study also point to the insidious nature of the objectifying gaze. Like other subtly sexist behaviors (e.g., benevolent sexism, Glick & Fiske, 1996; patronizing behavior, Vescio et al., 2005), the objectifying gaze could create a vicious cycle in which women suffer fewer peak motivational states, but continue to interact with their objectifiers because subtle acts of sexism are sometimes better alternatives to overt acts of hostile sexism (Jackman, 1994). In the current study, the context in which participants received the objectifying gaze was relatively nonthreatening. Over time, however, subtle forms of sexual objectification may provide a foundation for more hostile forms of sexual objectification, including harassment or assault (Larkin, Rice, & Russel, 1996; Murnen & Smolak, 2000; Weiner & Thompson, 1997) and may have cumulative negative effects on women.

Limitations and Future Directions

It is important to note some limitations and future directions of the current work. First, there are some generalizability limitations. Participants were in a lower power position than their partner. Experiencing sexual objectification has been theorized as related to powerlessness (Gruenfeld, Inesi, Magee, & Galinsky, 2008). By placing both women and men in a low power "worker" position, we attempted to make our manipulation similar across gender. However, placing women in a low power position may have made them more vulnerable to the objectifying gaze as a result of historical trends of male domination (Alvesson & Billing, 2009). Future research should investigate whether women in high power positions engage in coping strategies that reduce the negative effects of objectification (Fairchild & Rudman, 2008).

Additionally, we examined the consequences of the objectifying gaze for a relatively homogenous sample in a single context (i.e., professional setting). Receiving the objectifying gaze in a romantic relationship, for example, may lead to different interpersonal outcomes compared to in a work relationship. Future work should directly compare additional contextual factors (e.g., type of relationship and age differences) that may exacerbate or attenuate the adverse consequences of the objectifying gaze.

Furthermore, all our participants received the objectifying gaze from a different sex partner and most received the gaze from a partner of the same race and ethnicity. Cross-sex interactions were the focus of the current work because research and theorizing on the gaze suggests that men exhibit the objectifying gaze toward women (e.g., the male gaze; Calogero, 2004). However, receiving the gaze from a same-sex partner may convey a different meaning to women and men than receiving the gaze from a different-sex partner, and this meaning may further depend on sexual orientation. Research suggests that lesbians and gay men may experience sexual objectification similarly (Hill & Fischer, 2008; Martins et al., 2008) or differently (Kozee & Tylka, 2006; Martins et al., 2007; Wiseman & Moradi, 2010) than heterosexual women and men. Similarly, receiving the gaze may convey a different meaning to racial and ethnic minorities (Hebl et al., 2004). Furthermore, future research should examine the role of intersectionality (e.g., Cole, 2009) on sexual objectification experiences. It remains possible that the objectifying gaze may have a different meaning for lesbians, bisexual women or men, gay men, and racial and ethnic minorities than White, heterosexual women and men. One potential avenue for future research would be to examine how heterosexual and gay men respond to the gaze. Experiencing the objectifying gaze from another man may threaten heterosexual men's masculinity and activate behaviors to restore masculinity (e.g., Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008).

There were also some methodological limitations. It is possible that men did not detect the gaze. One might speculate that staring at the participant's chest was not similarly

objectifying for women and men (Young, 2003). Yet, research reveals that men increasingly focus on the dimensions of their biceps, waists, and chests, especially in social interactions (e.g., Pope et al., 1993; Pope et al., 1999). The manipulation also involved scanning and complimenting the participant's looks, which was not gender-specific. Future research could examine whether staring at women's and men's pelvic areas produce similar results, particularly when they are wearing revealing clothing (Martins et al., 2007).

Instead of men being oblivious to the gaze, the gender differences in the current study seem more consistent with our explanation that the objectifying gaze conveys different meanings to women and men. Girls and women are socialized to value appearance as their most important feature, whereas boys and men are socialized to value appearance as important among many features. Thus, the objectifying gaze may be threatening for women; women may infer that others value their looks and devalue their other features whereas men may infer that others value their looks as well as their other features.

Future research also may use additional measures of body dissatisfaction, math performance, and interaction motivation. For example, men's dissatisfaction with the muscularity of their figure may be examined. One limitation of the Figure Rating Scale is that it includes figures that vary in relative size. Although like women, men appear to be concerned about size (e.g., McKinley, 1998), this scale does not assess men's drive for muscularity. Additionally, a measure of interaction motivation was created because one did not already exist. Future research should further examine the validity of this measure and whether the current results generalize to other measures of interactions concerns. Finally, the math performance measure was used in previous research (Vescio et al., 2005), but it is unclear whether performance on this measure would generalize to other math and cognitive tests.

Concluding Remarks

Although women have made strides toward achieving equality with men, there are still gender differences in stereotypically masculine occupations (e.g., science, math, and technology) and other male-dominated domains (e.g., athletics), even though laws prohibit gender discrimination and sexual harassment. One reason for this remaining inequality is that people may not identify subtle forms of sexual objectification as problematic. Thus, laws may offer women little protection against objectifying gazes and appearance remarks. Moreover, gender differences first emerge during early adolescence (Steele, 2003), which corresponds with girls' first experiences of sexually objectifying behaviors (American Psychological Association [APA], 2007; Lindberg, Grabe, & Hyde, 2007; Slater & Tiggemann, 2002). Thus, objectification may be one of the earliest forms of sexism that girls experience and may contribute to remaining gender disparities in masculine domains.

Our research is an initial step toward documenting and explaining the immediate consequences of the objectifying gaze in actual interactions. The findings from our experiment reveal that the objectifying gaze is particularly problematic for women. In a sense, when people exhibit the objectifying gaze toward women, what they see is what they get; that is, they see a sexual object and they get a sexual object. The objectifying gaze may lead to a vicious cycle in which women are first objectified and as a result underperform, confirming the notion that women's looks are more important than what they can do. Unfortunately, this cycle may be further exaggerated if women continue to interact with the people who led them to underperform in the first place. On a positive note, however, identifying the adverse consequences of the objectifying gaze is a first step toward creating interventions that may work to reduce its effects.

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